

MILK IS BEST AND WORST FOOD

Professor Woodward Gives a
Clear Exposition at
the University.

CARE OF MILK AT HOME
CLEANLINESS SHOWN TO BE
SAFEGUARD AGAINST DISEASE.

At the university yesterday, before the sections in nature study, Professor Woodward of the Agricultural college spoke on the value and care of milk in the home and on the farm. His first demonstration was to every housekeeper as well as to every dairyman, was as follows:

"Dairying is concerned mainly with three things, the production of milk and the care of milk, and the production of food commodities from it. Under the first topic, we consider the breeds of cattle and the purposes for which they are best suited."

Breeds of Cattle.

"There are three main kinds, the beef breeds, the dual purpose breeds and the dairy breeds. Chief among the first are the Shorthorns, Herefords, Angus and Galloways. The breeds that answer fairly well for either beef or dairy purposes, but not especially well for either, are the Shorthorns, Red Polls, Brown Swiss and Holsteins. The principal dairy breeds are Jersey, Guernsey, Ayrshire, Holstein and Dutch Belted. These are fully described in farmers' bulletin 106—Breeds of Dairy Cattle."

"The production of beef and milk are antagonistic. Nature cannot perform these two opposite processes. Good milkers are thin, bony and angular, while the cow that carries much flesh usually produces little milk. The dual purpose breeds represent the middle stage of agriculture as in Utah; but when dairying is fully developed, the dairy breeds must be chosen. The Jersey gives the least and richest milk; next comes the Guernsey. The Ayrshire and Dutch Belted rank together, and the Holstein comes last in the scale of richness. For quantity the reverse order prevails; but the individual is more important than the breed."

Composition of Milk.

"Milk is a complex substance, always containing the same elements, though in varying proportions. No matter from what kind of animal it is taken. In percentages, average cow's milk contains water 87.1, fat 3.8, albumen 2.2, sugar 4.5, and ash or mineral matter .35 per cent. Contrary to popular belief, superior care and feeding will increase the quantity, but not the quality of milk. The quality varies with the breed, the period of lactation, the fat increasing with a longer period of milking. The fat may vary from 1.5 up to 11.2 per cent with different cows."

"The different uses to which these elements are put in the human body are indicated. Water is a necessary constituent of all bodily tissues and also to maintain temperature. Fat is used in the body for the production of energy and the formation of fatty tissue. It is composed of three elements—carbon, hydrogen and oxygen. When milk is bought or sold it is only the amount of fat that is considered in the price paid for it."

"Butter is composed of water and fat. The tissues of the body are proteid substances and depend upon casein and albumen. These contain, in addition to the three elements just named, nitrogen, which is a necessary constituent of muscles, hair, bone and nervous tissue. Cheese is composed of one-third water, one-third fat and one-third casein. Sugar is like fat as to the elements of which it is built. In the case of a young animal, milk is a food that is necessary to supply it with a food that contains relatively more of the proteids. The ash is used in digestion and in bone building."

Milk as Food.

"Milk will supply all the purposes of the body and is called a perfect food. It is easily digested, differing in this respect from meat. It is one of the most economical of foods. One quart of milk costing 5 cents will supply as much nutriment to the body as three-fourths of a pound of beef costing 9 cents. Milk in some form will be a food after beef may have been abandoned for this use."

Secretion of Milk.

"The secretion of milk takes place in the udder of the cow. Bacteria lodge on the end of the teat, which is moist, and may thus work up into the udder. The milk in the udder has a germicide effect, and so destroys the bacteria. Milkers who desire the purest form of milk therefore reject the first few streams of the milk drawn."

Souring of Milk.

"The souring of milk is due to the presence of two forms of bacteria, which work upon the milk sugar, or lactose and water, and break the sugar down into lactic acid."

"If we would keep milk from souring we must keep the bacteria out of it, and then treat the milk in such a way as to prevent the undue multiplication of the bacteria which it invariably contains. It is not possible to produce milk absolutely free from bacteria. Clean stables, free from dust and odors, will greatly reduce the number of the bacteria present, but will not wholly abolish them. About 20 bacteria to the cubic centimeter will be found in normal milk after ordinary precautions have been taken."

"Next to cleanliness, the most important condition in keeping the milk free

PURE FOOD LAW WORKS OUT WELL

State Chemist Declares That
Utah Leads Many States in
Standards of Excellence.

SCORE FOR SHORT WEIGHTS
SAYS CONSUMER GETS WORST
OF IT ON BUTTER ESPECIALLY.

"In my opinion," says Herman Harms, state chemist, in his report to the governor, "short weight and short measurement are (the dealer) equally guilty of adulteration. In the matter of short weight the consumer loses from 5 to as high as 25 per cent. This is notably true in butter, breakfast foods, flour and canned goods, olive oil, extracts and the like. A purchased pays for full-weight measure and he is certainly entitled to what he pays for."

Mr. Harms is of the opinion, furthermore, that Utah is all right in the way of observing the law relative to pure food. He says the public is not yet quite educated up to the degree of perfection desired, but that the work of education is constantly going on. He says the dealers are eager to comply with the requirements of the law, and that the national pure food law has had a wonderful effect for good. He says that such articles, such as cotton seed oil for olive oil, corn syrup for maple syrup and the various imitations with colorings for tomato catsup are no longer possible."

In more than a thousand analyses Mr. Harms finds that the percentage of adulteration ranges only between 3 and 4 per cent. Mr. Harms says the newspapers have been a powerful factor in bringing about the better conditions. "They have exerted a powerful influence upon the individual, manufacturer and retailer," he says. Misbranding, he asserts, is often the fault of misunderstanding, and a stricter observance of the rule applying to preservatives is urged.

"The conditions of food in this state compare favorably, generally speaking," declares Mr. Harms, "with those of any other state in the union, and are superior to many states. This has not only been my personal observation, but as well it is expressed in the statements of United States and other state officials. It is a well known fact that most men can be led farther than they can be driven, and in securing the good will and co-operation of our retailers and manufacturers, no doubt, a good deal more good has been accomplished in the food way than could have been obtained by dogging and legal methods. In other words, it is better to educate than to prosecute."

from bacteria is a low temperature. This will prevent bacterial growth. Therefore the milk, immediately after being drawn, should be kept cool in tight closed vessels of glass. By thus treating the milk Mr. Gurler of De Kalb, Ill., kept it in sealed glass vessels for three weeks without deterioration. "Another method is to heat the milk and thus kill the bacteria as well as prevent the body from growing. Sterilized milk and kill all its bacteria it must be heated to 212 degrees F. and kept there for thirty minutes. "Pasteurization of milk consists in heating it highly enough to destroy the bacillus of tuberculosis. For this purpose a heat of 60 degrees for twenty minutes or of 165 degrees for ten minutes, is sufficient to destroy the germs of nearly all diseases communicated in milk. This is one disadvantage in pasteurization, namely, that its efficacy as a germ destroyer is less than that of sterilization. The worst forms of uncleanliness with milk occur with the milkers' hands, the exposure of milk to foul odors which it quickly absorbs, and putting it into unclean and open vessels."

Diseases From Milk.

"The most usual diseases that may be transmitted in milk are tuberculosis, diphtheria, typhoid and scarlet fever. Tuberculosis causes more deaths than any other infectious disease. It afflicts swine and chickens as well as cattle. The latter have it in the same form as man, though it has not yet been conclusively proved that bovine tuberculosis is produced by the same germ as that which develops consumption in the human organism. Nevertheless it is an almost established fact that infants may be infected by the bovine tuberculosis, and it therefore follows as a probability that adults, especially if weak and susceptible, may also take the malady in that way. In the east perhaps 5 per cent of the animals have tuberculosis. In this state comparatively few, a very much smaller percentage, of dairy animals are affected. Not every cow will contaminate her milk when she has tuberculosis in some other part of the body. But if the disease is in the udder, which is a somewhat common condition, she will secrete milk contaminated by the germs."

"When typhoid fever germs occur in milk, they do not come from the cow. The germs are carried in the water drunk by the animals. The typhoid germ thrives in milk, as does also that of diphtheria."

"The diphtheria organism comes also from man. It usually gains access to the milk from the milkster, say through his coughing, whereby some of the invisible sputum spray may be carried into the milk vessel. Like the typhoid organism, this one grows rapidly in milk, and may infect those who drink it."

What Is Cleanliness.

"The matter of cleanliness is much misunderstood. In the sanitary sense, a dish is clean when free from bacteria. Hot water for rinsing without the use of dish rags or dish towels is the best method."

"The dish rag is an unnecessary evil about milk dishes and utensils, but it will do the work better. First wash the milk vessel in warm (not hot) water, to avoid cooking any of the milk adhering to its sides. Next rinse out with hot water, or sterilize with steam. Then let the dishes dry naturally. Do not use a rag to dry them, since it will transfer to the dishes the bacteria abundant in the cloth. By using a rag, people undo some of the work accomplished in the washing."

Holiday Rates.

December 15, 19, 24, 25, 31 and January 1st. Via Oregon Short Line. Limit January 4th. See agents for further particulars.

To the Public.

This is to notify the public that David Nelson, formerly driver No. 2, is no longer in our employ, and is not authorized to do any further business for this establishment.

CHICAGO CLOTHING CO.
37 Postoffice Place.

Picture Framing.

MIDGLEY-BODEL CO., 33 E. 1st South.

Boys' Yoke Laced Sweaters.

Big 75c value, now 25c.
Cutler Bros. Co., 35 Main street.

AMUSEMENTS.

Spending a million dollars a year should be an amusing occupation for anybody, including the lookers-on. The process of spending a million in order to win seven millions furnishes the basis for the comedy of "Brewster's Millions," which began a return engagement at the Salt Lake theatre last evening.

The play has established a reputation as a clear, sparkling and entertaining comedy, which is perhaps across the border line of farce. Great interest is added through the fact that the principal feminine role is played by Miss June Mathis, a young Salt Lake girl, whose steady progress on the stage is being watched with great interest by a large number of local friends.

Miss Mathis' interpretation of the part of Peggy, who finally marries the spectacular spendthrift, shows that she has

June Mathis.

a strong foundation of "temperament," and that she is working hard. With this combination, she is justified in looking forward to great things. It is an ingenious part she has, but she plays it with considerable strength, and every movement she makes has a meaning. She has the faculty of making a slight motion of the hand or a jerk of the head or a grimace which is a well known fact that she has a story, and that faculty spells success on the stage. The only criticism which might be made of her performance was that her voice did not appear natural or at its best. While with some modulations it was sweet and full of sympathy, at other times there was a raucousness which was almost repellant. On the whole, however, Miss Mathis shows an unusual amount of talent. She is young and possessed of magnetism, and impresses one strongly with the fact that she is a genuine actress. Hard work and experience should make her famous. This is not said in any spirit of local pride, but in an effort to secure a judicial perspective of her work.

Robert Ober, as Brewster, carried out the principal masculine role satisfactorily. Practically all the rest of the cast were lay figures, so far as the plot and the opportunities for acting were concerned. Some were pretty good, and some were passable, while none was really bad.

The play will remain through Wednesday evening and anybody who likes refreshing humor which appeals to the intellect and is not interpreted by slapstick methods, will find it well worth while.

The first performance of George Ade's successful comedy, "Just Out of College," will be given at the Salt Lake theatre on Thursday evening. According to report, this latest work of the famous author is a worthy successor to "The College Widow," which has delighted theatre-goers of this city. Several new hits are introduced with a chorus of pretty girls and a college boy quartette. A musical at popular prices will be given on Saturday. The sale of seats begins today.

The attraction offered by Willard Mack

HEWLETT'S TEAS

ALWAYS GOOD

MEHESY FURS

SPECIAL SALE. 154 Main St.

and company is one that made Nat Goodwin his first real success. "A Gold Mine," the piece, is giving first-class satisfaction and will be at the Colonial for the balance of the week.

The four active pickaninnies used by Miss Amy Stanley, in her singing and dancing melange, which is known in European music halls as "The Girl with the Pecks," are said to have been especially carefully selected, and are the most remarkable "little brownies" on the stage. Upon one occasion Adeline Genee, the noted English dancer, used them in a ballet at the Empire theatre, and at another time they appeared with the famous Farina chanteuse, Mlle. Fougere. Miss Stanley's act was much more pleasing than on the opening night. Sunday night, owing to a mixup in the orchestra, the music was not played correctly, and the act dragged. Miss Stanley also was affected by the altitude. This and eight other acts make up this week's bill. Hope Booth, who plays "The Little Blond Lady," was taken ill last evening, and her act, instead of being the first on the program, came after the final pictures, when Miss Booth was able to go on.

"The Devil," with Willis Hall in the title role, will be the bill at the Grand all week.

The cameraphone at the New Lyric continues to draw good crowds, and with Miss Alice Lloyd as a headline this week, unusual business is noted. Miss Lloyd sings several new songs that are hits. The other numbers on the program are entertaining.

Hoarse coughs and stuffy noses that may develop into pneumonia over night are quickly cured by Foley's Honey and Tar, as it soothes inflamed membranes, heals the lungs, and expels the cold from the system. F. J. Hill Drug Co.

TRIAL OF NIGHT RIDERS.

Requests of Both Prosecution and Defense Denied.

Union City, Tenn., Dec. 14.—The trial of eight alleged night riders, on a charge of murder, began this afternoon. Immediately after the men were brought into court the prosecution formally requested that the court instead of the sheriff, as is usual, select the venire. The defense insisted that the indictments returned at the October term of court, charging an offense of a less serious nature, be first disposed of and that the sheriff be permitted to select the panel.

Judge Jones decided adversely to both requests. Then the defense announced it was ready for trial, but, because of the ruling of the court, under protest.

Judge Jones announced that he would suspend the trial to be present Monday when the work of selecting the jury will begin.

SALT LAKE THEATRE

TONIGHT and Wed. and Wed. Matinee.

The Cohan and Harris Comedians Present

BREWSTER'S MILLIONS

Splendid cast, headed by

ROBERT OBER

and JUNE MATHIS

Prices, 25c to \$1.50. Sale now on.

Next Attraction—Thursday, Friday

and Saturday, "Just Out of College."

Sale today.

COLONIAL THEATRE

Third South Between Main and State.

Bell phone 434, Ind. 129.

TONIGHT

Willard Mack and Maud Leone

And associate players in Nat Goodwin's big success

A GOLD MINE

Prices, 25c, 50c, 75c, boxes and divans,

\$1.00. Matinee Wednesday and Saturday, 25c and 50c.

Week starting Sunday, Dec. 21,

Yale's Everlasting "Devil's Auction."

BOTH PHONES 3569

Opheum

THEATRE

ADVANCED VAUDEVILLE

HOPE BOOTH & CO.

VALADON. THE KINSONS.

BURT EARLE. AMY STANLEY.

LEO DONNELLY.

ALEXIS & SCHALL.

The Kinodrome, Opheum Orchestra.

Entire orchestra at all Matinees.

Matinee—10c, 25c, 50c; box seats,

75c. Evenings—25c, 50c, 75c; box seats,

\$1.00.

IT'S AT THE GRAND

AND NOWHERE ELSE

TONIGHT, MATINEE WED.,

MR. WILLIS HALL & CO.

In the Dramatic Sensation,

The DEVIL

DARING! BRILLIANT

Only Presentation in Salt Lake at

Popular Prices.

ESTABLISHED 1864 F. Auerbach & Co. ONE PRICE TO ALL NEVER UNDERSOLD

A Most Desirable Xmas Gift GLOVES

Our Special Holiday Values simplify the gift problem. We guarantee every pair and will exchange any that are not satisfactory, so you take no chances in selecting them here.

60c GLOVES FOR 40c—Ladies' fine Cashmere Gloves, silk lined, in black only, a very superior 60c grade, on sale all this week at 40c

1.25 KID GLOVES FOR \$1.00—The Famous two-clasp fine Kid Glove, a perfect fitting fine quality, the greatest \$1.25 value in the market, on sale all week \$1.00

BEST \$1.00 GLOVES FOR 75c—Famous two-clasp fine Kid Glove, cashmere lined, all sizes, the best \$1.00 Gloves in America, special this week 75c

35c AND 40c GOLF GLOVES FOR 25c—Golf Gloves for Ladies and children, all sizes and colors, qualities and styles that will appeal to you for warmth and durability. Xmas sale price 25c

\$2.50 GAUNTLET GLOVES FOR \$1.75—Ladies' Cape Gauntlet Gloves, in tans only, very nobby and durable, the best wear resisting quality, all sizes, on sale at \$1.75

\$3.25 LONG KID GLOVES FOR \$2.25—Ladies' 12 B length, fine French Kid Gloves, in black and colors, all sizes, the best \$3.25 value, this week \$2.25 only



It Carries Weight

Because it takes a weight of responsibility off your shoulders, and protects you from loss by fire when you have a policy taken out through

Heber J. Grant & Co.'s Agency

Our companies are all thoroughly responsible, and always make prompt settlement of claims.

20-26 South Main St., Salt Lake City, Utah. Phones 500.

Free Museum—For Men Only

Life-size reproductions of the human form, presenting a study of health and disease affording educational opportunities not found elsewhere. Our medical offices and treatment rooms are on the same floor, though separated from the museum by a large hall, so that there is no confusion or publicity; parties desiring to consult us can do so in strict privacy and free of charge.

\$5.00 Our Fee for a Complete Cure in any Uncomplicated Case

Weakness of men: Varicocele, Nervous Debility, Kidney, Bladder, Prostatic and all Contracted Diseases.

Hours—9 a. m. to 5 p. m.; evenings, 7 to 9.

Salt Lake Medical Institute

159 1/2 SOUTH MAIN ST. SALT LAKE CITY, UTAH

GARDNER DAILY STORE NEWS

MAIL ORDERS PROMPTLY FILLED

Every winter garment in the house at a reduction

U. S. Weather Forecast for today: Partly cloudy.

GARDNER DAILY STORE NEWS

MAIL ORDERS PROMPTLY FILLED

Fine Clothes Greatly Reduced

No man who has any need whatever for a winter suit or overcoat should fail to take advantage of the exceptional values offered him in this sale. Better clothing cannot be had at any price and reduced prices on good clothing of any sort is unusual at this season of the year. Reductions apply to every winter suit and overcoat in the store, men's boys' and children's; blacks, blues and pattern goods.

MEN'S SUITS AND OVERCOATS

Gardner \$10.00 Suits and Overcoats go in this sale at	\$7.00	Gardner \$25.00 Suits and Overcoats go in this sale at	\$19.00
Gardner \$12.00 Suits and Overcoats go in this sale at	\$9.00	Gardner \$30.00 Suits and Overcoats go in this sale at	\$22.50
Gardner \$15.00 Suits and Overcoats go in this sale at	\$11.00	Gardner \$35.00 Suits and Overcoats go in this sale at	\$26.00
Gardner \$18.00 Suits and Overcoats go in this sale at	\$13.50	Gardner \$40.00 Suits and Overcoats go in this sale at	\$30.00
Gardner \$20.00 Suits and Overcoats go in this sale at	\$15.00	Gardner \$50 Overcoats go in this sale at	\$37.50



Boys' and Children's Suits and Overcoats, all styles and all sizes, go at from 25 to 30 per cent discount from Gardner regular low prices.

Presents for Men and Boys

The Gardner store is fast taking on the Christmas aspect. Yesterday hundreds were on hand making early purchases of Christmas articles. We have an endless variety of useful and substantial things that will make the most sensible presents.

Mufflers—25c to \$3.50	Shirts—50c to \$5
Handkerchiefs—10c to \$1	Hose—10c to \$1
Handkerchiefs in beautiful individual cartons, per box of three—\$1 and \$1.50	Gloves—25c to \$6
Box of six—\$1.40	Fancy Suspenders—50c to \$3.50
Umbrellas—75c to \$12	Fancy Waistcoats—\$1 to \$5

ONE PRICE J. P. GARDNER THE QUALITY STORE

A fine lot of men's fancy Worsteds Vests, sold regularly at from \$4 to \$7.50, go now at, each, \$2.50.

Lounging Robes and House Coats at special reduced prices.

Buy a Shoe Certificate

A holiday gift that is appreciated.

Shoes for women, \$2 to \$7.50 a pair.

Shoes for men, \$2.50 to \$7.50 a pair.

Harris
MONEY-BACK-SHOES

238 Main

Agents "POSTER," for women.
Agents "NETTLETON," for men.